



Best Available Copy

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/829,273	04/09/2001	Wayne R. Myers	CRNC.78765	8119
46169 7590 02/04/2008 SHOOK, HARDY & BACON L.L.P. Intellectual Property Department 2555 GRAND BOULEVARD KANSAS CITY, MO 64108-2613				
			EXAMINER SMITS, TALIVALDIS IVARS	
			ART UNIT 2626	PAPER NUMBER
			MAIL DATE 02/04/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/829,273

Applicant(s)

MYERS ET AL.

Examiner

Talivaldis Ivars Smits

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-26, 28-46 and 48-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-26, 28-46, and 48-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. In response to the Office Action of 8/28/2007 applicant has submitted an Amendment, filed 11/28/2007 arguing to traverse the claim rejections.

Response to Arguments

2. Applicant's arguments with respect to claims 1-6, 8-26, 28-46 and 48-60 have been fully considered but they are not persuasive.
3. Attempting to traverse the rejection of the independent claims 1, 21, and 41, applicant argues that "the Binsted reference fails to teach or suggest 'determining if the medical test result will be automatically interpreted independent of clinician input or if the medical test result will be interpreted using clinician input' ", interpreting this limitation to mean that there is "a threshold determination of whether the system will even automatically interpret the medical test result or if the result will be manually interpreted by a a clinician (i.e., no automatic interpretation by the system)." (Remarks, p. 13-14).

The examiner begs to differ. There is a possible **alternative interpretation** of the aforementioned claim limitation "determining if the medical test result will be automatically interpreted independent of clinician input or if the medical test result will be interpreted using clinician input", which was used by the examiner in the Office

Action (as being suggested, not taught, by Binsted, p. 3). Examiner's position was and is that said limitation is also read upon if a decision is made as to whether a clinician will **accept** the automatic interpretation as suitable for providing to the patient, or whether said clinician will choose to **modify** this automatic interpretation.

Applicant's argued "no automatic interpretation by the system" **until** a clinician decides that there should be one generated is not claimed, and is not required by the claim language. For, if a clinician accepts the automatic interpretation as adequate, and forwards it to the patient without editing, the medical test result **has** been **automatically interpreted**.

4. As for claims 8, 28, and 48, and Binsted's system supposedly not sending "the medical test result to the clinician", the "explanations automatically generated by the system" (Remarks, p. 15) necessarily **include a test result**. Note that the singular form "the test result" is therein recited, and the antecedent basis therefor in the respective independent claims 1, 21, and 41 is "a medical test result", which is also singular. Thus, given the claim language, there is **no need** for **every one** of a possible plurality of medical test results for the given patient to be present in the automatic explanation sent to the clinician.

Also, contra applicant (Amendment, p. 15), Binsted's clinician inherently matches "the medical test result to a template" when editing the automatically-generated explanations, because said explanations **are** from a template to begin with, and the clinician is merely **adding further content** to said template-formatted explanations. It is

not claimed **how** the clinician input matches the medical test result to a template, only that it **does**.

5. Thus, the art rejections in the previous Office Action stand, and are repeated next.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-6, 8-9, 11-16, 20-26, 28-29, 31-36, 40-46, 48-49, 51-56, and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim Binsted *et al.* ("Generating Personalised Patient Information Using the Medical Record", 1995), hereafter Binsted.

As to claim 1, 21 and 41, Binsted teaches:

receiving a medical test result for a type of medical test ("A list of tests and measurements, each with data and result", p. 32);

if the medical test result will be automatically interpreted independent of clinician input, identifying at least one template associated with the type of medical test; selecting

a template matching the medical test result; and outputting a plain language explanation based on the selected template (cholesterol level template on p. 36).

Binsted does not explicitly teach determining if the medical test result will be automatically interpreted independent of clinician input or if the medical test result will be interpreted using clinician input. However, Binsted suggests this by teaching that "the knowledge base, the record, and the text plans used to generate the explanations must all be easily modified by medical personnel, p. 30).

It would have been obvious to one of ordinary skill at the time of invention to have clinician input because Binsted teaches that "The system must not 'put words in the doctor's mouth'" (p. 30).

As to claims 2, 22 and 42, Binsted teaches identifying at least one diagnosis output with an explanation associated with the type of medical test comprises identifying a set of a plurality of templates associated with the type of medical test ("The text generator uses domain-dependent text plans", wherein "There can be several text plans of the same name", p. 32 and 33).

As to claims 3, 23 and 43, Binsted teaches each template of the identified set corresponds to a range of medical test result values ("combining general explanations with reminders of patient specific data", and "cholesterol level" example on p. 36).

As to claims 4, 24 and 44, Binsted teaches selecting templates which correspond to the range encompassing the medical test result ("cholesterol level" example, p. 36).

As to claims 5, 25 and 45, Binsted teaches each template of the identified set corresponds to a medical test result value ("cholesterol level" example, p. 36).

As to claims 6, 26 and 46, Binsted teaches determining a template corresponding to the medical test result value ("hyperlipidaemia" example, p. 36).

As to claims 8, 28 and 48, Binsted suggests if the medical test result will be interpreted using clinician input distributing the medical test result to the clinician and receiving clinician input, the input matching the medical test result to a template (It is essential that a medical expert be able to check through the generated explanations, p. 30).

As to claims 9, 29 and 49, Binsted suggests recording the input of the clinician ("the knowledge base, the record, and the text plans used to generate the explanations must all be easily modified by medical personnel, p. 30).

As to claim 11, 31 and 51, Binsted teaches the selected template includes at least one placeholder (see items tagged "i" in computer program listing after Fig. 1 on p. 33).

As to claim 12, 32 and 52, Binsted teaches inserting data into the selected template at the placeholder ("This plan will apply only to a measurement which is in the patient record, and will generate (as part of a larger explanation) the specifications of a sentence giving the measurement value and date", p. 33).

As to claims 13, 33 and 53, Binsted teaches the data is numerical value for the medical test result ("Your cholesterol level was last measured at 3.8 mmol/L", p. 33).

As to claims 14, 34 and 54, Binsead does not explicitly teach the step of determining whether the selected template can be sent directly to the patient. However, Binsted suggests this by teaching that "the knowledge base, the record, and the text plans used to generate the explanations must all be easily modified by medical personnel, p. 30).

It would have been obvious to one of ordinary skill at the time of invention to have a clinician first check the selected template before sending it to the patient because Binsted teaches that "The system must not 'put words in the doctor's mouth'" (p. 30).

As to claims 15, 35 and 55, Binsted teaches the outputting includes sending a message to a storage unit and adapting the selected template for viewing via a web browser (implied by "the user starts from a hypertext version of their record, and can click on any of the issues in that record to obtain further information", p. 34).

As to claims 16, 36 and 56, Binsted teaches the outputted plain language explanation is textual (see rejection to claim 1).

As to claims 20, 40 and 60, Watrous teaches the step of distributing the results to a physician for review prior to the step of outputting a plain language explanation based on the selected template (see rejection to claim 14 above).

8. Claims 10, 17-19, 30, 37-39, 50, and 57-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Binsted as applied to claims 1, 21 and 41 above in view of Rapaport et al. (5,926,526), hereafter Rapaport.

As to claims 10, 30 and 50 Binsted does not teach receiving patient information and comparing the patient information against a list of patients having authorization to receive the medical test result.

However, Rapaport teaches having a patient enter his identification number, along with a password, giving the patient access to the system (co. 7, lines 48-57).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the automatic diagnosis features of Binsted with the authorization requirement of Rapaport to supply only the patient or her authorized representative(s) with patient;s specific medical test results.

As to claims 17, 37 and 57, Binsted does not teach the outputted plain language explanation is audible.

However, Rapaport teaches the outputted plain language explanation is outputted via a telephone (col. 5, lines 1-2)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the automatic diagnosis features of Binsted with the audible output of Rapaport to supply the patient with specific medical test results, that the patient is able to understand in a secure environment without having to have the medical provider to continually attempt to contact the patient, saving both time and resources of the medical provider and patient, as taught by Rapaport(col. 1, lines 43-58).

As to claims 18, 38 and 58, Binsted does not teach the plain language explanation is delivered by an automated phone system.

However, Rapaport teaches the outputted plain language explanation is outputted via a telephone with an automated user interface (col. 5, lines 1-2)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the automatic diagnosis features of Binsted with the audible output of Rapaport to supply the patient with specific medical test results, that the patient is able to understand in a secure environment without having to have the medical provider to continually attempt to contact the patient, saving both time and resources of the medical provider and patient, as taught by Rapaport (col. 1, lines 43-58).

As to claims 19, 39 and 59, Binsted does not teach the plain language explanation is delivered by a wireless device.

However, Rapaport teaches the output can be a wireless communication device, (col. 5, lines 11-13).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the automatic diagnosis features of Watrous with the output of Rapaport et al. to supply the patient with specific medical test results, that the patient is able to understand in a secure environment without having to have the medical provider to continually attempt to contact the patient, saving both time and resources of the medical provider and patient, as taught by Rapaport (col. 1, lines 43-58).

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

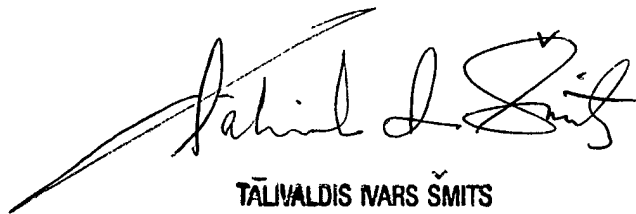
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Talivaldis Ivars Smits whose telephone number is 571-272-7628. The examiner can normally be reached on 8:30 a.m. to 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 571-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

8/24/2007



TĀĻVALDIS VARS ŠMITS
PRIMARY EXAMINER